REMARKS

The Office Action dated December 10, 2008 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 20, 21, 31, 34-36 and 42-44 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 12 and 13 have been canceled without prejudice or disclaimer. No new matter has been added.

The Office Action objected to claims 31 and 35 for containing a minor informality. Specifically, claims 31 and 35 improperly depended from claim 44 and recited a "method", respectively. Applicant has corrected these minor informalities by amending the claims. Withdrawal of the objection is kindly requested.

The Office Action rejected claims 23 and 43 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. The claims allegedly contain subject matter (i.e., a computer readable medium) which was not described in the specification. This rejection is respectfully traversed.

Page 6, lines 1-8 of the original application discloses "a GGSN 20 which comprises rate shaping apparatus 36, flow detection apparatus 38 and quality of service apparatus 40. In practice the apparatus of the base transceiver station 6 and the GGSN 20 will be provided by circuitry and/or be implemented in software." As may be appreciated, the specification offers adequate and clear support for implementing rate shaping, flow detection, quality of service procedures via software. "Software" is recited in claims 23 and 43 as being embodied on a computer readable medium and executed by

a processor. If the GGSN 20, for example, were to implement its operations via software, then one skilled in the art would recognize that the GGSN 20 has a computer readable medium and a processor (at a minimum) in order to execute the software to perform the intended operations. Therefore, the specification does provide support for claims 23 and 43, and is, thus, in compliance with the requirements of 35 U.S.C. §112, first paragraph. Withdrawal of the rejection is kindly requested.

Claims 20, 26 and 42-44 were rejected under 35 U.S.C. §112, second paragraph, because the phrase "receiving negotiation determined at a resource node..." is allegedly indefinite. Applicant has amended claims 20 and 42-44 to clarify that the cost information is sent from the resource node and is generated at the resource node. Accordingly, Applicant submits that the claims are in accordance with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is kindly requested.

Claims 1, 4, 10, 11, 14, 17, 20, 21, 23, 26-29, 33, 35-37, 39 and 41 were rejected under 35 U.S.C. §102(b) as being anticipated by Kari (WO 97/26739). The Office Action took the position that Kari discloses all of the elements of the claims. This rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claims 4, 10, 11, 14 and 17 are dependent recites a system. The system includes user equipment and a resource node configured to manage resource for communication with said user equipment. The system also includes a managing node configured to manage traffic flow. The resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node. The managing node selects a

parameter for a new traffic flow based on negotiation information. The negotiation information comprises cost.

Claim 17, upon which claims 33 and 36-41 are dependent, recites a method that includes determining negotiation information at a resource node, the negotiation information comprising cost. The method also includes passing the determined negotiation information between the resource node and a managing node.

Claim 20, upon which claims 26 and 35 are dependent, recites an apparatus that includes a traffic flow manager configured to manage a traffic flow. The apparatus also includes an information receiver configured to receive negotiation information from a resource node. The negotiation information includes cost information which is determined at the resource node. The apparatus also includes a selector configured to select at least one parameter for a new traffic flow based on said negotiation information.

Claim 21, upon which claims 27-30 are dependent, recites an apparatus that includes a resource manager configured to communicate with user equipment. The apparatus also includes an information determiner configure to determine negotiation information, the negotiation information comprising cost. The apparatus also includes an information passer configured to pass the negotiation information to a managing node.

Claim 23 recites a computer program embodied on a computer readable medium, said computer program configured to control a processor to perform certain operations. Those operations include determining negotiation information at a resource node, the negotiation information comprising cost. Those operations also include passing the determined negotiation information between the resource node and a managing node.

As will be discussed below, the disclosure of Kari fail to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above. The rejection is respectfully traversed for at least the following reasons.

Kari discloses a packet radio system that includes a radio interface for a mobile station MS (see FIG. 1 of Kari). The system includes packet radio support nodes (SGSN), gateway support nodes (GGSN), and also includes a billing gateway support node (BGGSN).

The Office Action alleged that FIG. 1 of Kari discloses all of the features recited in independent claim 1. For example, the Office Action alleged that the mobile station (MS) is comparable to a user equipment, the base transceiver station (BTS) in combination with a serving gateway support noted (SGSN) is comparable to a resource node, and the gateway GPRS support node (GGSN) is comparable to a managing node (see lines 4-11 of paragraph 8 on page 4 of the Office Action). Applicant disagrees that Kari discloses a "a resource node...a managing node...wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node...wherein said negotiation information comprises cost", as recited in independent claim 1 and similarly in independent claims 17, 20, 21 and 23.

Referring to Kari, the GGSNs of different operators may communicate with one another to support roaming between different GPRS networks (see page 7, lines 10-13 of Kari). The GGSN is also used for storing location information of the GPRS mobile stations. Regarding billing information, the user statistics used for charging purposes are

collected mainly at the SGSN and the GGSN. Specifically, the SGSN collects information about the radio interface usage and the GGSN collects information about the data network usage (see page 8, lines 6-11 of Kari).

The SGSN and the GGSN do not pass cost information between each other. Instead, both devices are configured to collect different information related to network usage that may later be turned into cost information by a "billing system" which is "not a part of the actual packet radio network" (see page 8, lines 27-30 of Kari). Kari further emphasizes the remote location of the billing/charging system by noting that "the charging system is placed apart from the actual packet radio network in a specific charging center BC" (see page 8, lines 31-34 of Kari). In another example the BC is at the MSC. None of the examples disclosed in Kari include the SGSN or the GGSN handling the cost information, and, certainly not handling the cost information between the SGSN or the GGSN.

Kari further discloses that the billing support node (BGGSN) is configured to receive cost information from the SGSN and the GGSN, however, the BGGSN is located on the internal backbone portion of the network (see FIG. 1) and the communication between the BGGSN and the SGSN or the GGSN is not comparable to communications between a resource node and a managing node. For instance, the present claims recite "a resource node...a managing node...wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node...wherein said negotiation information comprises cost", as recited in independent claim 1 and similarly

in independent claims 17, 20, 21 and 23. Kari simply fails to disclose a resource node that negotiates cost information with a managing node.

In addition to the above noted deficiencies of Kari, Applicant submits that Kari fails to disclose a managing node that manages traffic flow or provides flow level management procedures. At best, the only management procedures that Kari discloses include packet routing (see the last four lines of page 7 of Kari).

Referring to FIG. 4 of the present application, a flow is detected and is communicated to a QoS apparatus that selects a traffic class for each flow based on the QoS needs. In addition, claim 1 recites "a managing node...to manage traffic flow...said managing node selecting a parameter for a new traffic flow based on said negotiation information." Kari does not disclose flow control and does not perform these types of higher level management procedures disclosed in the present application.

Therefore, Applicant submits that Kari fails to disclose all of the subject matter of independent claims 1, 17, 20, 21 and 23. By virtue of dependency, Kari also fails to disclose all of the subject matter of those claims dependent thereon. Withdrawal of the rejection of claims 1, 4, 10, 11, 14, 17, 20, 21, 23, 26-29, 33, 35-37, 39 and 41 is kindly requested.

Claims 31, 32, 34 and 42-44 were rejected under 35 U.S.C. §102(e) as being anticipated by Oyama (U.S. 2002/0068545). The Office Action took the position that Oyama discloses all of the subject matter of the claims. This rejection is respectfully traversed.

Initially, Applicant notes that claims 31, 32 and 34 can not be rejected under §102(e) as being anticipated by Oyama because base claim 17 was not rejected under §102(e) as being anticipated by Oyama. This omission clearly places the Office Action in non-compliance with 37 C.F.R. § 1.104(b), which explicitly requires that "[t]he examiner's action will be complete as to all matters." Also, MPEP § 707.07(i) states that "[i]n every Office action, each pending claim should be mentioned by number, and its treatment or status given" (emphasis added). Accordingly, it is respectfully submitted that the rejection of claims 31, 32 and 34 is improper and must be withdrawn. Further, because the outstanding Office Action is not complete as to all matters (i.e., claims 31, 32 and 34 are not rejected or allowed) under 37 C.F.R. § 1.104(b), a next Action in this case cannot be made Final.

Claim 42 recites a method that includes managing a traffic flow. The method also includes receiving negotiation information from a resource node. The negotiation information includes cost information which is determined at the resource node. The method further includes selecting at least two parameter for a new traffic flow based on said negotiation information.

Claim 43 recites a computer program embodied on a computer readable medium configured to control a processor to perform certain operations. Those operations include managing a traffic flow. Other operations include receiving negotiation information from a resource node. The negotiation information includes cost information which is determined at the resource node. The operations also include selecting at least two parameter for a new traffic flow based on said negotiation information.

Claim 44 recites an apparatus that includes managing means for managing a traffic flow. The apparatus also includes information receiving means for receiving negotiation information from a resource node. The negotiation information includes cost information which is determined at the resource node. The apparatus also includes selecting means for selecting at least two parameters for a new traffic flow based on the negotiation information.

As will be discussed below, the disclosure of Oyama fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above. The rejection is respectfully traversed for at least the following reasons.

Oyama discloses a method for handling charging procedures for a multimedia session between a terminal and a remote host on an application session and on an access level. A resource manager distributes resources between all bearer services requesting such services, and based on the QoS attributes of each of the bearers (see paragraph [0039] of Oyama).

Contrary to the Office Action's interpretation of Oyama, there is no disclosure of "receiving negotiation information from a resource node, wherein the negotiation information comprises cost information which is determined at the resource node...and selecting at least two parameter for a new traffic flow based on said negotiation information", as recited, in independent claim 42 and similarly recited in independent claims 43 and 44.

Paragraph [0046] of Oyama discloses that QoS attributes are selected and defined to support efficient radio realization. A QoS profile is defined by UMTS QoS attributes.

The RNC will then obtain the QoS profile from the SGSN during PDP context activation. Paragraph [0049] of Oyama discloses that the PDP context signaling carries the requested and negotiated QoS profile between the nodes in the UMTS network. This is illustrated in FIG. 15 of Oyama which discloses a connection establishment between a MS and a UTRAN. Next, a PDP context is activated to include a requested QoS that is sent to a SGSN. In return, the SGSN provides a "negotiated RAB QoS attributes" and later sends a created PDP context request to a GGSN that includes a negotiated QoS.

Although, Oyama does appear to process negotiated QoS attributes when setting up a connection to a MS, Oyama does not provide any examples which indicate that negotiation information is received from a resource node. Furthermore, there is no cost information determined at a resource node. Therefore, there can not be any cost information that is determined at a resource node and sent from the resource node so that the cost information can be used to select at least two parameters for a new traffic flow.

Oyama discloses that a token is generated to correlate active session charges associated with an ongoing session. Oyama sets up a session and then calculates cost information to keep track of the session costs. There is no disclosure anywhere in Oyama of using a resource node to determine cost information and doing so at the resource node. Furthermore, the concept of selecting at least two parameters for a new traffic flow based on the cost information is beyond the scope of Oyama's disclosure since the session is established prior to performing any cost analysis of the session (see FIGS. 19 and 21 of Oyama).

Therefore, Applicant submits that Oyama fails to disclose all of the subject matter of independent claims 42-44. Withdrawal of the rejection of claims 42-44 is kindly requested.

Claims 15, 30, 38 and 40 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kari in view of Arunachalam (U.S. 6,631,122). The Office Action took the position that Kari discloses all of the subject matter of the pending claims except for load balancing. The Office Action then relied on Arunachalam to cure the deficiencies of Kari with respect to the claims. This rejection is respectfully traversed.

Kari is discussed above. Arunachalam discloses a wireless QoS agent that operates on an all-IP network. The QoS agent communicates with a radio resource manager (RRM) 805. The QoS agent examines a ToS/DS byte of a first packet of a new flow and maps it to a class of services (CoS) class. The QoS agent assigns a tag, referred to as a logical flow ID (LFI), which associates a particular service class with a particular flow. The RRM 805 receives the LFI and CoS information and "allocates appropriate LAC/MAC resources to this flow" (see column 9, lines 54-56 and FIG. 8 of Arunachalam). In addition, a flow monitoring element (FME) 811 monitors the QoS behavior of a particular flow and sends sample measurements to the QoS agent 801. The QoS agent provides a call admission decision to the RRM 805 using statistics and estimation based on the sample measurements (see column 10, lines 24-32 of Arunachalam).

Claims 15, 30, 38 and 40 are dependent upon claims 1, 17 and 21, and contains all of the limitations thereof. As discussed above, the Kari fails to disclose or suggest all of

the elements of claims 1, 17 and 21. In addition, Arunachalam fails to cure the deficiencies in Kari as Arunachalam also fails to disclose or suggest "a resource node...a managing node...wherein said resource node and said managing node are configured so that negotiation information determined by the at least one resource node is passed between the resource node and the managing node...wherein said negotiation information comprises cost", as recited in independent claim 1 and similarly in independent claims 17, 20, 21 and 23.

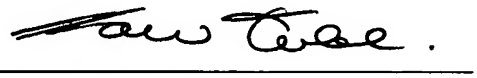
Thus, the combination of Kari and Arunachalam fails to disclose or suggest all of the elements of claims 15, 30, 38 and 40. Furthermore, claims 15, 30, 38 and 40 should be allowed for at least their dependence upon claims 1, 17 and 21, and for the specific limitations recited therein.

For at least the reasons discussed above, Applicant respectfully submits that the cited references fail to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1, 3, 10-15, 17, 20, 21, 23 and 26-44 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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